**AMENDMENTS IN THE SPECIFICATION:**

Page 1, before paragraph [0001] please amend the title of the invention as follows:

~~THREE-DIMENSIONAL~~ 3D IMAGE DISPLAY AND ~~THREE-DIMENSIONAL~~ 3D IMAGE DISPLAY METHOD

Please paragraph [0059] with the following amended paragraph:

[0059] Each of embodiments of the 3D image display apparatus and 3D image display method according to the present invention will be described below in detail with reference to ~~Figs. 1-4 to Fig. 36~~ Figs. 1 to 36. Identical or equivalent elements will be denoted by the same reference symbols in the description of the drawings, without redundant description. For convenience' sake of description, a coordinate system in each drawing is the xyz orthogonal coordinate system in which the z-axis is defined along a direction normal to the spatial light modulator.

(First Embodiment)

Please replace paragraph [0062] with the following amended paragraph:

[0062] The lens 20 has the optical axis parallel to the z-axis, and collimates each of illumination light components of the respective wavelengths emitted from the three corresponding point light sources of the illumination light source section [[20]] 10, into a parallel plane wave and makes the parallel plane waves incident from mutually different incident directions to the spatial light modulator 30. In a case where the lens 20 is comprised of a single convex lens, the spacing between each of the three point light sources and the lens 20 is equal to

the focal length of the lens 20. Since the three point light sources are located at the aforementioned positions, the blue illumination light component is normally incident to the spatial light modulator 30, while the illumination light components of red and green are obliquely incident to the spatial light modulator 30. The lens 20 is preferably an achromatic lens having an identical focal length for the wavelengths of the respective illumination light components.

Please replace paragraph [0090] with the following amended paragraph:

[0090] When the wavefront transformation areas $52_r$, $52_g$, and $52_b$ on the rear focal plane of the lens 40 are shown in a superimposed state as shown in Fig. 15, the green wavefront transformation area $52_g$ is included in the red wavefront transformation area $52_r$, and the blue wavefront transformation area $52_b$ is included in the green wavefront transformation area $52_g$. Therefore, a full-color 3D image can be observed when the aperture 51 of the mask 50 is set to be equivalent to the blue wavefront transformation area $52_b$ and when the reproduced light components of the respective colors having passed through this aperture [[52]] <u>51</u> are observed.

Please replace paragraph [0096] with the following amended paragraph:

[0096] When the wavefront transformation areas $52_r$, $52_g$, and $52_b$ on the rear focal plane of lens 40 are shown in a superimposed state as shown in Fig. 19, the green wavefront transformation area $52_g$ is included in the red wavefront transformation area $52_r$, and the blue wavefront transformation area $52_b$ is included in the green wavefront transformation area $52_g$.

Therefore, a full-color 3D image can be observed when the aperture 51 of the mask 50 is made coincident with the blue wavefront transformation area $52_b$ and when the reproduced light components of the respective colors having passed through the aperture [[52]] <u>51</u> are observed.

Please replace paragraph [0101] with the following amended paragraph:

[0101] In this case, as shown in Fig. 21, the zero-order diffracted wave of the red reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into a rectangular area $52_r$ based on a position ~~$R'(0,\lambda_r f/2P-\lambda_b f/2P,0)$~~ $\underline{R'(0,\lambda_r f/2P-\lambda_b f/2P)}$, on the rear focal plane of lens 40. In addition, as shown in Fig. 22, the zero-order diffracted wave of the green reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into a rectangular area $52_g$ based on a position ~~$G'(0,\lambda_g f/2P-\lambda_b f/2P,0)$~~ $\underline{G'(0,\lambda_g f/2P-\lambda_b f/2P)}$, on the rear focal plane of lens 40. Furthermore, as shown in Fig. 14, the zero-order diffracted wave of the blue reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into the rectangular area $52_b$ based on the position B'(0,0), on the rear focal plane of lens 40.

Please replace paragraph [0102] with the following amended paragraph:

[0102] When the wavefront transformation areas $52_r$, $52_g$, and $52_b$ on the rear focal plane of lens 40 are shown in a superimposed state as shown in Fig. 23, the green wavefront transformation area $52_g$ is included in the red wavefront transformation area $52_r$, and the blue

wavefront transformation area $52_b$ is included in the green wavefront transformation area $52_g$. Therefore, a full-color 3D image can be observed when the aperture 51 of the mask 50 is made coincident with the blue wavefront transformation area $52_b$ and when the reproduced light components of the respective colors having passed through this aperture [[52]] $\underline{51}$ are observed.

Please replace paragraph [0107] with the following amended paragraph:

[0107] In this case, as shown in Fig. 21, the zero-order diffracted wave of the red reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into a lower rectangular area $52_r$ based on the position $\cancel{R'(0,\lambda_r f/2P-\lambda_b f/2P,0)}$ $\underline{R'(0,\lambda_r f/2P-\lambda_b f/2P)}$, on the rear focal plane of lens 40. In addition, as shown in Fig. 25, the zero-order diffracted wave of the green reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into an upper rectangular area $52_g$ based on the position $\cancel{G'(0,-\lambda_b f/2P,0)}$ $\underline{G'(0, -\lambda_b f/2P)}$, on the rear focal plane of lens 40. Furthermore, as shown in Fig. 14, the zero-order diffracted wave of the blue reproduced light component generated from the spatial light modulator 30 is subjected to wavefront transformation by the lens 40 into the lower rectangular area $52_b$ based on the position B'(0,0), on the rear focal plane of lens 40.

Please replace paragraph [0108] with the following amended paragaph:

[0108] When the wavefront transformation areas $52_r$, $52_g$, and $52_b$ on the rear focal plane of lens 40 are shown in a superimposed state as shown in Fig. 26, the green wavefront

transformation area $52_g$ is included in the red wavefront transformation area $52_r$, and the blue wavefront transformation area $52_b$ is included in the green wavefront transformation area $52_g$. Therefore, a full-color 3D image can be observed when the aperture 51 of the mask 50 is made coincident with the blue wavefront transformation area $52_b$ and when the reproduced light components of the respective colors having passed through this aperture [[52]] 51 are observed.

Please replace paragaph [0117] with the following amended paragraph:

[0117] When compared with the second embodiment, the 3D image display apparatus 3 and 3D image display method according to the third embodiment are similar thereto in each of the illumination light source section 10, spatial light modulator 30, and mask 50, but are different therefrom in mutual arrangement of the components because of the spatial light modulator 30 being the reflection type spatial light modulator. When compared with the case of the second embodiment, the operation of the 3D image display apparatus 3, and the 3D image display method according to the third embodiment are different therefrom in that the lens 20 also acts as the lens 40, in that each illumination light component, after passing through the half mirror 25, is converted into a parallel plane wave by the lens 20 to enter the spatial light modulator 30, in that the reproduced light components emerge on the same side as the side where the illumination light components are incident to the spatial light modulator 30, and in that each reproduced light component is subjected to wavefront transformation as reflected by the half mirror 25 after passing through the lens 20. For the rest, the operation of the 3D image display apparatus [[2]] 3, and the 3D image display method according to the third embodiment are theoretically almost similar to those in the second embodiment.

Please replace paragraph [0123] with the following amended paragraph:

[0123] The lens 20 has the optical axis parallel to the z-axis, and it collimates each of the illumination light components of the respective wavelengths emitted from the three corresponding point light sources of the illumination light source section [[20]] 10, into a parallel plane wave and makes the parallel plane waves incident from mutually different incident directions to the spatial light modulator 30. In a case where the lens 20 is comprised of a single convex lens, the spacing between each of the three point light sources and the lens 20 is equal to the focal length of the lens 20. Since the three point light sources are located at the aforementioned positions, the blue illumination light component is normally incident to the spatial light modulator 30, while the illumination light components of red and green are obliquely incident to the spatial light modulator 30. The lens 20 is preferably an achromatic lens having an identical focal length for the wavelengths of the respective illumination light components.

Please amend paragraph [0136] with the following amended paragraph:

[0136] In the present embodiment, concerning the aperture 51 of the mask 50, its area is not controlled in time division for each wavelength, but is constant independent of the wavelengths. Then the [[mask]] aperture 51 placed herein is one having the location and shape adapted to $\lambda_b$ being the shortest wavelength out of the three wavelengths ($\lambda_r$, $\lambda_g$, $\lambda_b$). As for the other two wavelengths ($\lambda_r$, $\lambda_g$), the incident directions of the illumination light components to the spatial light modulator 30 are set so that their diffracted waves of any order out of the reproduced

light components pass through the aperture 51. Where the spatial light modulator 30 is able to modulate only one of the amplitude and phase, the convergence points of reproduced waves of the orders used in formation of the 3D image out of the reproduced light components of the respective wavelengths are made coincident with each other, whereby these convergence points are blocked by the mask 50. The lenses 20, 40 suitably applicable herein are lenses adequately compensated for chromatic aberration and having an identical focal length for each of the three wavelengths ($\lambda_r$, $\lambda_g$, $\lambda_b$).